by external irritation; but this action or irritation ceases much sooner in the heart than in the voluntary muscles in cases where the poison has been inserted under the skin. On the contrary, in cases where the poison was introduced by the mouth, the heart, even to the period of three hours after the administration, and when the animal was reactionless (*reactionslos*), may be excited to contraction. The author, therefore, infers that there is a difference between the two modes of poisoning. In most instances the heart ceases to act during the diastole, and is left full of blood.

In one instance noted by Dr. Setschenow, he injected a portion of concentrated solution of the sulphocyanide into the external jugular vein of a rabbit. Death was almost momentary, with convulsions. A quarter of an hour after the operation the heart was found rigid, and the muscles of the neck and of the hinder extremities were also found rigid. In this example it was admitted by the experimentalist that by the direct action of the poison on the muscles, their paralysis and death result. In this respect, therefore, Bernard's view is admitted as correct; but Setschenow qualifies the admission by trying to prove that there is a difference between absence of irritability of muscular fibre and actual death.—*B. and F. Med.-Chirurg. Rev.*, Oct., 1859, from *Archiv fur Path. Anat. und Phys.*, von R. Virchow, Sept., 1858.

47. *Poisoning by Cyanide of Potassium.*—Dr. A. Schauenstein, in a communication on poisoning by cyanide of potassium, gives an account of five cases of death by the cyanide. The author, who is a judicial chemist, comments upon the great increase of deaths by suicide through the agency of this poison. Thus, in Vienna, from 1851 to 1856, only two poisonings were noted, one of which was doubtful; while from August, 1857, to December, 1858, no less than five cases came under the personal observation of the author. In proportion to this increase of deaths from the cyanide there was a corresponding decrease of deaths from arsenic.

Dr. Schauenstein relates at length three of the cases observed, and in brief the pathology of the two others. In all cases the death seems to have been sudden. In one case, in a young girl, strong tetanic spasms came on directly after the poison had been taken, and death took place in less than an hour. In the second case, occurring in a young man, death took place almost instantly, and with no striking symptoms. The third case was similar; no note of the symptoms in the remaining two cases is given, but Dr. Schauenstein observes, that in several of the cases death took place suddenly, as in apoplexy.

In all the cases a post-mortem examination was conducted, but the appearances observed are considered by the author as offering nothing very characteristic. They were:—

(*a.*) The brain containing more or less blood.

(*b.*) The blood in the cavities of the heart dark, and of thick consistency.

(*c.*) The condition of the stomach various. In one case the mucous surface presented no particular colouring. In the case where life was prolonged nearly an hour the mucous membrane was slightly red, but offered no other extraordinary appearance. In another case, the death being very sudden, the mucous membrane was of a dark red colour, swollen, and in places covered with numerous bloody points; the contents of the stomach were also of blood-red colour; the two remaining cases of the five presented similar appearances in a less degree.

(*d.*) The smell of prussic acid in the stomach was very evident in four of the cases. But in one case, on account of the quantity of undigested food in the stomach, the smell remained hidden entirely.

(*e.*) The reaction of the contents of the stomach was strongly alkaline, and in every case chemical research proved without doubt the presence of prussic acid; but constantly formic acid was also found, showing that prussic acid in the stomach is transformed into formic in many cases.

[This latter fact, one of great interest, was originally pointed out by Dr. Schauenstein in the "Wochenbl. der Zeitschrift der k. k. Ges. der Aerzte, No. 3, 1857."]

Dr. Schauenstein, in commenting on the cases, opines that there are no true and distinguishing pathological indications by which the effects of the poison can be safely pronounced. He further observes that the chemical detection may become equally difficult in instances where, from the body having been dead several days, or having undergone a rapid decomposition, the poison has been decomposed.—*B. and F. Med.-Chirurg. Rev.*, Oct., 1859, from *Zeitschrift der k. k. Gesellsschaft. der Aerzte zu Wien*, No. 1, Jan. 3, 1859.

48. *Action of Strychnine and Nicotine.*—In two papers, published in the *Proceedings of the Royal Irish Academy*, November 29, 1856, and June 28, 1858, the Rev. Professor HAUGHTON draws attention to the opposite character of the specific actions of strychnine and nicotine on the muscular system. From the well-known facts that strychnine produces tetanic contraction of the muscles, whilst nicotine is a most powerful agent, whether administered in the form of tobacco-smoke or of infusion of the leaves, in relaxing muscular action, Mr. Haughton was led to believe that these poisons might be used as antidotes to each other, and with a view of testing the truth of this conjecture he made a series of experiments. These experiments were made by introducing frogs into separate solutions of nicotine and strychnine, and into similar solutions mixed together. He arrived at the conclusion that nicotine has the action of retarding, and in certain cases of completely counteracting, the effects of strychnine. In one experiment a frog had lived for forty-seven minutes in a mixture of two solutions, of which one would have destroyed life in four minutes; the other would have produced paralysis in one minute, and destroyed life in twenty-three minutes; and yet, in the mixture, the animal lived forty-seven minutes, and afterwards for twenty-four hours. In another experiment the frog, immersed in a similar mixture of the poisons for ten minutes, ultimately recovered, the effect of the strychnine being completely obviated by the action of the nicotine. Since the announcement of Mr. Haughton's results, Dr. O'Reilly, of St. Louis, Missouri, acting upon the suggestion, has successfully treated a case of poisoning by strychnine by the administration of infusion of tobacco leaves. The patient had taken six grains of strychnia; an emetic had been administered which had produced vomiting, but notwithstanding, the usual symptoms were fully developed. Dr. O'Reilly writes: "One hour and fifteen minutes after he had taken the poison we gave him the first dose of the tobacco infusion, which he swallowed with difficulty. We continued it in tablespoonful doses at intervals of five minutes, until he had taken half the quantity infused, before we had noticed a favourable change. Then the muscles became relaxed, the spasms less severe, and the intervals between them longer; and so conscious was the patient of relief, that he constantly called for the tobacco juice when he found the paroxysm approaching. This encouraged us to persevere with the infusion, prolonging the intervals between each dose as the frequency of the spasms abated; until finally, after twelve hours, they disappeared, leaving him in a state of fearful nervous prostration, from which he recovered in a few days under a careful tonic treatment. The whole quantity of tobacco used in making the infusion was one ounce and two drachms."—*B. and F. Med.-Chirurg. Rev.*, Oct., 1859.

49. *Arsenic, Fallacy of Sources of, in Dead Bodies.*—Dr. LOIS records the fact of his having made examinations of various specimens of brass. He discovered arsenic in ten specimens of brass, and in some specimens in large quantities. He considers this point as of importance to the medical jurist, inasmuch as various brazen ornaments—such as medals and rosaries, which are laid so frequently in coffins—may, by undergoing change in the presence of the products of decomposition, supply to the remains the poison which a chemist may be instructed to search for in the exhumations of persons who have been thought to die from poison.—*B. and F. Med.-Chirurg. Rev.*, Oct., 1859, from *Oesterr. Zeitschrift. f. pract. Heilk.*, No. xlix., 1859; and *Vierteljahrsschrift f. prakt. Heilk.*, No. xvi., 1859.